

### **REMARKS**

Claims 1, 3-11, 13-24, 26-34, 36-44, and 46-54 are pending with this paper. Claims 1, 3-11, 13-24, 26-34, 36-44, and 46-55 are rejected by this Office Action. Applicant is amending independent claims 1, 11, 24, 34, and 44. Applicant is canceling claim 55 without prejudice.

Applicant acknowledges the withdrawal of the rejection of claims 1-55 under 35 U.S.C. 112, second paragraph.

Applicant thanks the Examiner for the telephonic interview on November 28, 2006 to discuss proposed amendments.

#### **Claim Rejections – 35 U.S.C. § 103**

**Claims 1, 3-11, 13-24, 26-34, 36-44, and 46-55 are rejected under 35 U.S.C. 103(a) as being unpatentable over “Integer Programming Models for Sales Resource Allocation,” March 1980 (Zoltners) and U.S. Patent No. 6,341,296 (Dulaney).**

Regarding claim 1, Applicant is amending claim 1 to include the features of “collecting profit data for a plurality of classes in the business operation, each class including a physical allocation having a cost function, the physical allocations being constrained by a total floor space, each class corresponding to a department of the business operation,” “determining a spatial allotment for each said department,” and “determining each profit function from a corresponding demand distribution for each said department.” The amendment is supported by the specification as originally filed. For example, the specification discloses, in conjunction with Figure 5 (Page 12, lines 1-20. Emphasis added.):

Figure 5 illustrates a number of possible embodiments tailored to specific business problems that may arise in a variety of business operations. The business problem may be associated with a dimensionally constrained assortment optimization 610, the main constraint may be total width, and the first attribute may be an item width. The business problem may be associated with a budget

constrained assortment optimization 612, the main constraint may be associated with a total budget, and the first attribute may be an item cost. The business problem may be associated with advertising space allocation 618, the constraint may be associated with a total area of advertisement, and the first attribute may be an item advertisement area. The business problem may be associated with catalog space allocation 620, the constraint may be associated with a total area of catalog pages, and the first attribute may be an item advertisement area. The business problem may be associated with a start of season budget allocation 614, the constraint may be associated with a total budget available for merchandise, and the first attribute may be an item cost. **The business problem may be associated with retail floor space optimization 616, the constraint may be associated with total floor space, and the first attribute may be item width.** The business problem may be associated with loan portfolios 622, the constraint may be associated with a total loan budget, and the first attribute may be an item loan amount. The business problem may be associated with merchandise allocation to stores from a warehouse 624, the constraint may be associated with total units in the warehouse, and the first attribute may be units shipped to the stores.

The combination of Zoltners and Dulaney fails to suggest anything about retail floor space optimization.

Applicant is similarly amending independent claims 11, 24, 34, and 44. Claim 11 includes a processor that accesses the memory to retrieve computer-executable instructions to perform the features of "collecting profit data for a plurality of classes in the business operation, each class including a physical allocation having a cost function, the physical allocations being constrained by a total floor space, each class corresponding to a department of the business operation," "determining a spatial allotment for each said department," and "determining each profit function from a corresponding demand distribution for each said department." Claim 24 includes a processor that accesses the memory to retrieve computer-executable instructions to perform the features of "collecting profit data for a plurality of classes in the business operation, each class including an economic allocation having a cost function, the economic allocations being constrained by a total floor space, each class corresponding to a department of the business operation," "determining a spatial allotment for each said department," and "determining each profit function from a corresponding demand distribution for the spatial allotment of each said

department.” Also, claim 34 includes “a data unit, the data unit having a memory that includes profit data for a plurality of classes in the business operation, each class including an allocation having a cost function that is stored in the memory, and the memory also including a cost constraint, the allocations being constrained by a total floor space, each class corresponding to a department of the business operation” and “a profit-model unit, the profit-model unit being connected to the data unit, and the profit-model unit including executable instructions for determining profit functions for the allocations from the profit data, wherein determining the profit functions includes: determining demand distributions for the allocations from the profit data; determining a spatial allotment for each said department; and determining each profit function from a corresponding demand distribution for the spatial allotment of the item each said department.” Claim 44 includes executable instructions for “collecting profit data for a plurality of classes in the business operation, each class including an allocation having a cost function, the allocations being constrained by a total floor space, each class corresponding to a department of the business operation,” “determining a spatial allotment for each said department,” “determining each profit function from a corresponding demand distribution for the spatial allotment of each said department.” Because claims 3-10 and 54-55, 13-23, 26-33, 36-43, and 46-53 ultimately depend from claims 1, 11, 24, 34, and 44, respectively, claims 3-10 and 54, 13-23, 26-33, 36-43, and 46-53 are patentable for at least the above reasons. Applicant requests reconsideration of claims 1, 3-11, 13-24, 26-34, 36-44, and 46-54.

All objections and rejections have been addressed. Hence, it is respectfully submitted that the present application is in condition for allowance, and a notice to that effect is earnestly solicited.

Applicant notes that the amendments to the claims are intended to expedite prosecution of the present patent application and reserves the right to pursue the original subject matter in a subsequent patent application.

Respectfully submitted,

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